

AB 32: The California Global Warming Solutions Act of 2006

An overview presented to the
California Air Resources Board
October 19, 2006



Overview

Background

AB 32

Approach, Timeline, Plan, Regulations

Implementation

Implications for Board

Summary



Background



Governor's Executive Orders

Greenhouse gas reduction targets

By:

- 2010 reduce to 2000 levels*
- 2020 reduce to 1990 levels**
- 2050 reduce to 80%
below 1990 levels

* *Equals approximately 60 million tons emission reduction, 11% below business as usual*

** *Equals approximately 174 million tons emission reduction, 30% below BAU*



Governor's Executive Orders

**Executive Order S-17-06 signed on
October 16, 2006**

**Cal/EPA Secretary continues
leadership role**

**Secretary to establish
Market Advisory Committee**

**ARB to collaborate with
Secretary and Climate Action Team to
develop market-based program**



Climate Impacts

California Projected Impacts

75% loss in snow pack

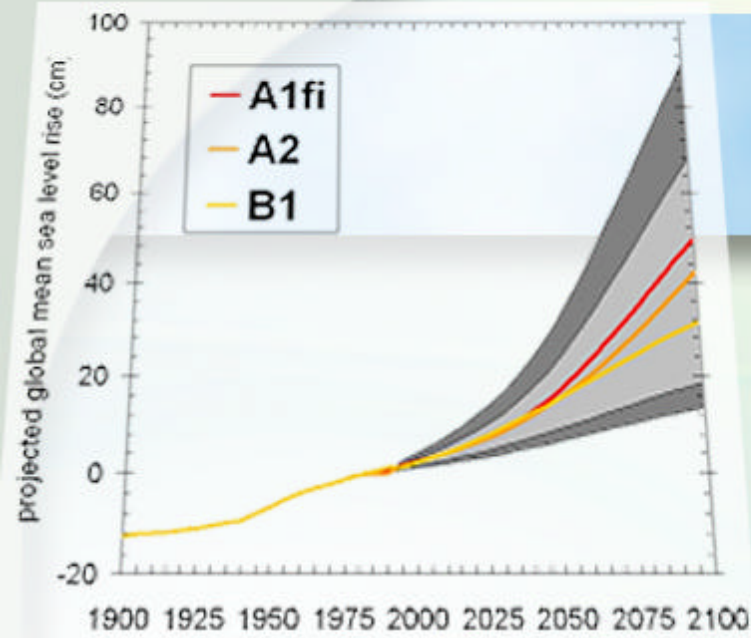
1-2 foot sea level rise

70 more extreme heat days/year

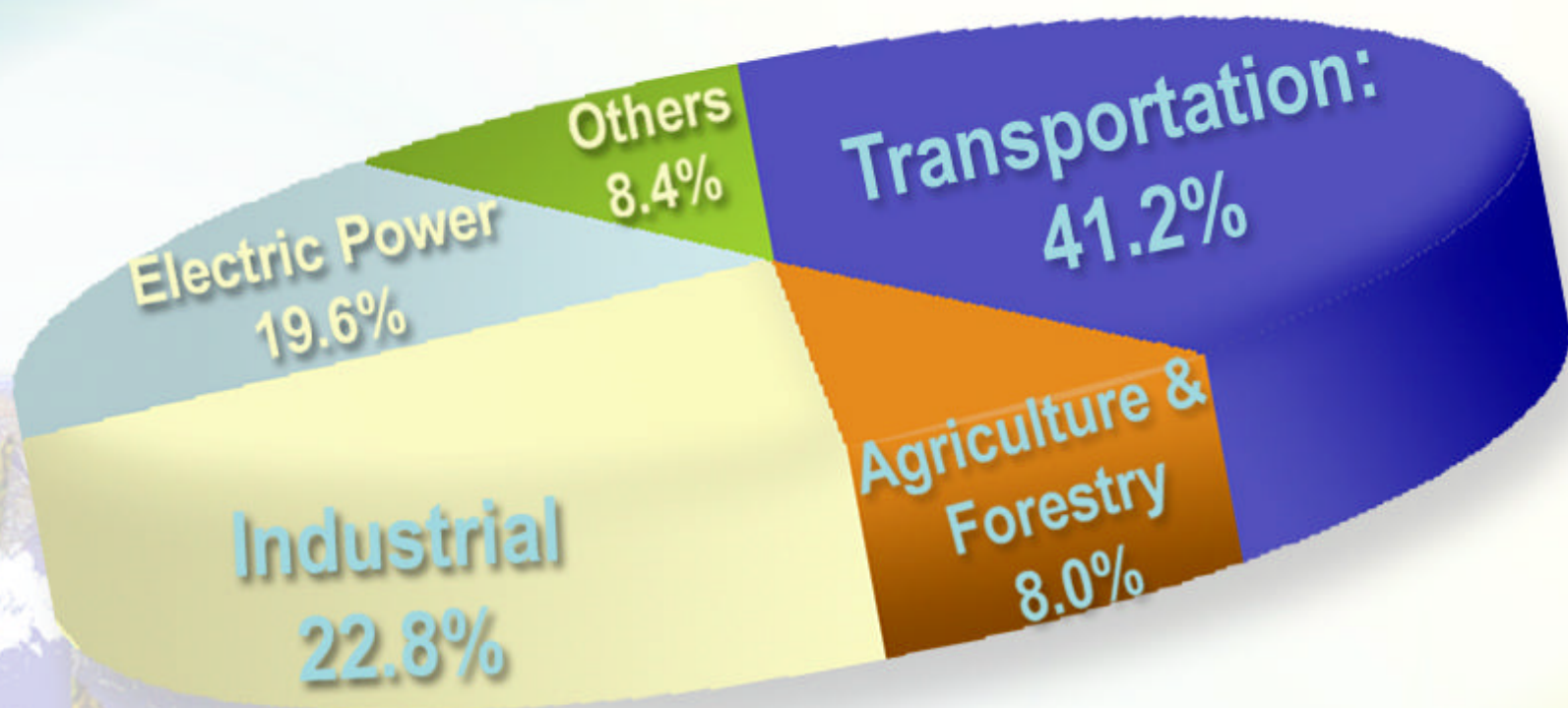
80% more 'likely ozone' days

55% more large forest fires

Twice the drought years



California Climate Change Emissions



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Climate Action Team

**Multi-agency team of
Department Directors**

Chaired by Cal/EPA Secretary



**Charged with
recommending strategies**

Report released April 2006

- Ambitious targets are achievable
- More than 40 strategies identified
- Good for the economy
(jobs, technology development)



CARB Reduction Strategies

	2020 (MMT) ¹
Vehicle climate change standards	30 
Other new light duty vehicle technology improvements (“Pavley 2”)	4
Diesel anti-idling	1.2 
HFC reduction (incl. non-vehicular)	8.5
Transport refrigeration, off-road electrification, port electrification	<1
Manure management	1

¹ million metric tons

CARB Reduction Strategies

	2020 (MMT)
Semiconductor industry targets (PFC)	2
Alternative fuels: Biodiesel blends	<1
Alternative fuels: Ethanol	3.2
Heavy duty vehicle emission reduction	3
Reduced venting and leaks in oil and gas systems	1
Hydrogen highway	Included

Global Activity

Kyoto Protocol

Tony Blair agreement

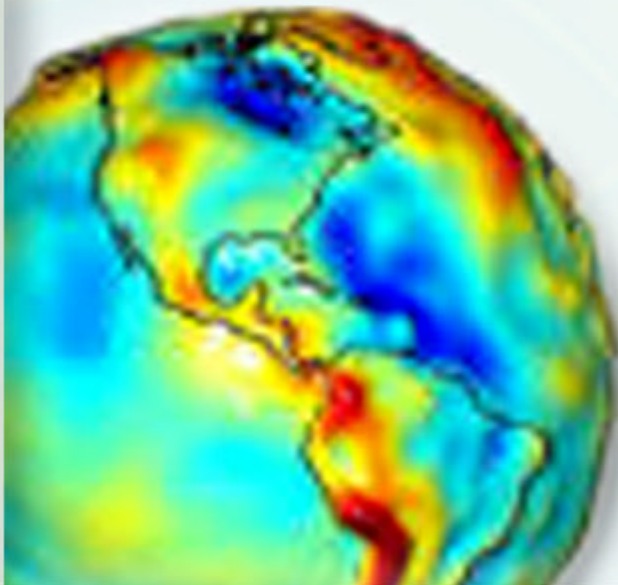
Europe

Japan

Emerging Countries

RGGI

Western States



Media Coverage

**Greenhouse gas plan may
waft across U.S.**

Backers hope other states follow California lead.
Sac Bee 9-4-06

**California takes lead
to cut greenhouse
gases**

Governor, *S. Bee*

**'A CRITICAL STEP' ON
WARMING**

POWERFUL PLAYER: Air Resources Board
stands to gain great economic influence
SF Chronicle 9-1-06

AB 32 Approach

Sets in statute Governor's 2020 target

ARB is state agency charged with monitoring/regulating sources of emissions of greenhouse gases in order to reduce emissions

Climate Action Team continues to coordinate statewide climate policy



AB 32 Timeline

- 1/1/07:** ARB maintains statewide inventory
- 6/30/07:** List of discrete early actions
- 1/1/08:** Mandatory reporting of emissions
Adopt 1990 baseline/2020 target
- 1/1/09:** Scoping plan of reduction strategies
- 1/1/10:** Regulations to implement early action items
- 1/1/11:** Regulations to implement scoping plan

Discrete Early Actions

Stand-alone measures that can be implemented prior to primary program

- **Make progress while planning**
- **Address sources not closely tied to market mechanisms**

Publish list by June 30, 2007

Regulations to be enforceable by January 1, 2010



Emission Reporting and Emission Limit

By January 1, 2008:

**Approve Statewide
Emission Limit**

**Adopt emission
reporting and
verification requirements**



ARB Implementation Plan

ARB to develop Scoping Plan by January 1, 2009

Describes how ARB will achieve reductions

Consider programs in other states and nations

Evaluate total potential costs and benefits of plan to economy, environment and public health



Other State Agency Obligations

Continued Role on Climate Action Team

Progress towards reductions in Climate Action Team report

Collaboration with ARB on Market-Based System



Market-Based Mechanisms

What is included:

- **System of market-based declining annual aggregate emission limits**
- **GHG emissions exchanges, banking, credits, and other transactions that result in the same reduction as direct compliance**

Intended to facilitate achievement of cost-effective reductions

Market-Based Mechanisms

Reductions must be real,
quantifiable, verifiable,
additional, enforceable by ARB

ARB must consult with PUC
regarding effect on electricity
and natural gas providers

Must minimize “leakage”

No geographic boundaries



Market-Based Mechanisms

Consider potential for
localized impacts

Prevent increases in criteria
pollutants or toxic air contaminants

Maximize additional
environmental and
economic benefits



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Criteria for Rulemaking

Design regulations to be
equitable, minimize cost, encourage early
action

No disproportionate impact on
low-income communities

Credit for early voluntary

reductions

Complement criteria
pollutant strategies



Criteria for Rulemaking

Consider cost-effectiveness

**Consider overall
societal benefits**

Minimize administrative burden

**Consider significance of
sources and source categories**



Other Provisions

No effect on PUC authority

**No effect on obligation of
utilities to provide customers with safe
and reliable
electric service**

**No limitation or expansion of
air district authority**

ARB given fee authority

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Other Provisions

GHG passenger vehicle regulation gives largest reduction of any measure

If regulation found invalid, ARB to achieve equivalent or greater reduction through alternative regulations to control mobile sources



Goals

Create model that is copied by other states and nations

Develop least cost approach

Generate economic benefits due to improved efficiency and

business creation

Co-benefits (e.g., additional reductions in criteria and toxic emissions)

Reduce emissions to 1990 levels by 2020

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Implementation



Implementation

Assemble team (existing and new staff hires, external experts)

Open, transparent process

Intensive consultation

- **Cal/EPA**
- **Climate Action Team**
- **National and international experts**
- **Broad list of stakeholders**



Implementation

Governor's Market Advisory Committee

ARB Advisory Committees

- Environmental Justice
- Economic and Technology Advancement

Compatibility with other

jurisdictions

Need to look outward



Implications for Board

Whole new arena

Be inclusive

Significant expansion into
leadership role on Climate Change issues

National and international
collaboration

Scrutinized for early signals on
program direction



Summary

Major initiative with new responsibilities

Significant progress on reducing GHG Emissions

Develop model program others will use

Market-based mechanism is key element



Summary

Local, state, national, and international stakeholder participation

Numerous requirements for next several years

Assembling team and reaching out to experts

Efforts should not take away from other ARB goals and

climate priorities.